Tuberculin Skin Test Guidelines

I. Purpose and Scope

The tuberculin skin test (TST) and Quantiferon-TB Gold (QFT) are used by the DOC to determine the existence of infection with tuberculosis (4-ACRS-4C-09). This test is also a part of the evaluation for TB disease. The purpose of this guideline is to ensure accurate and consistent administration of the TST and QFT.

II. Procedure

A. Administration

The TST is administered using 0.1 ml (5 tuberculin units) of Purified Protein Derivative (PPD) in a tuberculin syringe. The employee who prepared the syringe will administer the TST. Pre-drawn syringes are not an acceptable practice. The site is prepped for injection. The Mantoux method (intradermal injection) is the route of administration to the inner surface of the forearm 2 to 4 inches below the elbow. When the TST is placed there will be a wheal (bump) at the site. This wheal will disappear in a few minutes. The site should not be covered nor have any medications such as ointments applied until after the test is read. The information will be recorded in the electronic healthcare record (EHR).
B. Reading

The reaction, if any, will be an area of induration (swelling) that can be felt around the site of the injection. Any redness (erythema) or other discoloration at the site should be disregarded. The edges of the indurated area are marked with a pen. The marked points are then measured. This measurement, a number, is the result and is documented as millimeters of induration, such as 10mm, in EHR. For a TST with no induration the result is documented as 0mm. A TST is not read as positive or negative; the reading is a number.

C. Interpreting

The Centers for Disease Control and Prevention has developed specific criteria to determine if a TST reading indicates an individual is infected with tuberculosis.

1. Interpreting the TST
   a. A TST reading from 0mm to 4mm is interpreted as negative.
   b. A TST reading greater than or equal to 5mm and less than 10mm is positive if any of the following are true,
      (1) HIV-positive persons;
      (2) Recent contacts of TB case;
      (3) Persons with fibrotic changes on chest radiograph consistent with old healed TB;
      (4) Patients with organ transplants and other immunosuppressed patients.
   c. A TST reading ≥10mm is positive for everyone working or residing in the DOC.
   d. For Annual TB Testing, a QFT lab test will be obtained for verification of a positive TST.
   e. For new employees or employees participating in annual testing who have a TST reading greater than or equal to 5mm and less than 10mm will be referred to their private physician or local health department, at their own expense, to have the reading interpreted (4-4386). The DOC employee reading the TST will complete the top portion of the “TST Interpretation Form”, (MSRM 140301.03A) then will give the form to the employee to present to their private physician or local health department for interpretation. When the form is complete the employee will return it to the CHSA or designee.
D. Two-Step Testing (Boosting)

1. Two-step testing is required for all new receptions and new hires that have no documentation of a prior “positive” TST, or have documentation of a negative TST that is more than 12 months old. Two-step (booster) testing will be performed when the initial TST is interpreted as “negative” for that individual. The second TST will be performed upon arrival to their receiving facility.

2. Two-step testing is not performed for annual screening or contact investigations.

III. Follow-up

Inmates with a positive TST will complete a “Tuberculosis Questionnaire” (DOC 140301D) and will have a chest x-ray. Inmates who are having signs and/or symptoms of TB should be considered for isolation until TB can be ruled out. Chest x-rays may be submitted to the OSHD for evaluation if indicated. For Annual TB Testing, a CXR will be ordered with a positive QFT result.

IV. Reporting

All new positive TST results and interpretations will be documented on the “Tuberculosis Summary Record Opening Interchange” (DOC 140301C). The “Tuberculosis Summary Record Opening Interchange” (DOC 140301C) will be co-signed to the Nurse Manager (Infection Control) in Medical Services for review and signature. For Annual TB Testing, all new positive QFT results will be reported on the “TB Annual Summary Form” (DOC 140301F).

V. Action

The Chief Medical Officer (CMO) will be responsible for compliance with this procedure.

The CMO in Medical Services will be responsible for the annual review and revisions.

Any exceptions to this procedure will require prior written approval from the CMO.

This procedure will be effective as indicated.


Distribution: Medical Services Resource Manual
VI. References


OP-140301 entitled, “Tuberculosis Control Program”

Referenced Forms | Title | Located in
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DOC 140301C | “Tuberculosis Summary Record Opening/Closing Interchange” | OP 140301
DOC 140301D | “Tuberculosis Questionnaire” | OP 140301
DOC 140301F | “Annual TB Summary Form” | OP 140301
MSRM 140301.03A | “TST Evaluation Form” | Attached